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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/709,717

05/24/2004

Daniel Man-Tung Wong

13004-US-PA

3716

31561

7590

08/15/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE

7 FLOOR-1, NO. 100

ROOSEVELT ROAD, SECTION 2

TAIPEI, 100

TAIWAN

EXAMINER

DO, AN H

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

14

Office Action Summary

Application No.

10/709,717

Applicant(s)

WONG ET AL.

Examiner

An H. Do

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment filed on 03 July 2006 has been acknowledged.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook (US 6,274,056).

Silverbrook discloses the following claimed features:

Regarding claim 1, a fluid ejection device (Figures 1-3) suitable for an ink-jet printer, comprising: a substrate (Figure 3, elements 15, 16) having an orifice (4); a beam (2), disposed over the substrate (15, 16), the beam (2) having a fixed portion (right portion) and a cantilever portion (Figure 2, left portion of beading beam 2), wherein the cantilever portion is disposed over the orifice (4); and an activation pad (17), disposed between the cantilever portion of the beam and the substrate (15, 16), wherein the activation pad (17) is disposed apart from the beam (Figure 3 shows the beam 2 being separated by layer 17).

Regarding claim 2, further comprising a stopper (9), disposed on the cantilever portion of the beam (2), wherein the stopper (9) is aligned to the orifice (4) of the substrate (Figure 3).

Regarding claim 3, wherein a dimension of the stopper (9) is larger than that of the orifice (Figure 3 shows element 9 is larger than the nozzle 4).

Regarding claim 4, wherein the fixed portion of the beam (2) is a collar structure disposed on the substrate (15, 16) for supporting the cantilever portion (Figure 3).

Regarding claim 5, further comprising an encapsulation structure (20) covering the substrate (15, 16) for encapsulating the beam (2) and the activation pad (Figure 3).

Regarding claims 18-20, wherein when a voltage is applied to the activation pad (since element is a circuitry layer), the cantilever portion of the beam (2) is pulled down from an initial position toward the orifice (4) of the substrate for ejecting the fluid out of the orifice (Figures 2 and 3); and wherein when the voltage applied to the activation pad (17) is removed, the cantilever portion of the beam (2) gradually moves away from the orifice (4) (Figure 1).

Response to Arguments

3. Applicant's arguments with respect to claims 1-5 and 18-20 have been considered but are moot in view of the new ground(s) of rejection. The newly found reference of Silverbrook (US 6,274,056) discloses the claimed invention as detailed above.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 571-272-2143. The examiner can normally be reached on Monday-Friday (Flexible).

Art Unit: 2853

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AD
August 7, 2006



An H. Do
Primary Examiner
Art Unit 2853